REMARKS

Reconsideration and withdrawal of the restriction requirement is respectfully requested in view of the amendments and remarks herein.

I. STATUS OF CLAIMS AND FORMAL MATTERS

Claims 26, 2-33 and 36-41 are pending in this application. Claim 29 has been amended; claims 40 and 41 have been added to round out the scope of protection to which Applicants are entitled. No new matter is added by this amendment.

It is submitted that the claims, herewith and as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. The amendments of and additions to the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Rather, these amendments and additions are made simply for clarification and to round out the scope of protection to which Applicants are entitled. Support is found throughout the specification and from the pending claims.

II. RESTRICTION REQUIREMENT

The Office Action required restriction from among the following Groups:

Group I: Claims 26, 28, 30-33 and 36-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a vector, a host cell and a transgenic plant;

Group II: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding a branching enzyme, a vector, a host cell and a transgenic plant;

Group III: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding an ADP glucose pyrophosphorylase, a vector, a host cell and a transgenic plant;

Group IV: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding a granule bound starch synthase, a vector, a host cell and a transgenic plant;

Group V: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding a soluble starch synthase, a vector, a host cell and a transgenic plant;

Group VI: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding a debranching enzyme, a vector, a host cell and a transgenic plant;

Group VII: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding a disproportioning enzyme, a vector, a host cell and a transgenic plant;

Group VIII: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding a plastid starch phosphorylase, a vector, a host cell and a transgenic plant;

Group IX: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding an R1 enzyme, a vector, a host cell and a transgenic plant;

Group X: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding an amylase, a vector, a host cell and a transgenic plant; and

Group XI: Claims 27, 29, 34, 35, and 37-39, drawn to a nucleic acid molecule encoding a potato α-glucosidase, a nucleic acid molecule encoding a glucosidase, a vector, a host cell and a transgenic plant.

Applicants elect Group I, claims 26, 28, 30-33 and 36-39 with traverse. Additionally, as claim 29 now depends on claim 26, it is believed that it should be included with the claims of Group I. Applicants retain the right to file divisional applications to non-elected subject matter. Reconsideration and withdrawal of the restriction requirement are requested in view of the remarks herein.

The Office Action alleges that there is no special technical feature that links the nucleic acid molecules of Groups I-XI, and therefore that they do not relate to a general inventive concept. Applicants disagree. All of the claims relate to nucleic acid molecules that can be used to synthesize modified starch in a plant. In addition, the nucleic acid molecules of the invention encode enzymes involved in starch metabolism.

The result of the present restriction requirement is inefficiency and unnecessary expenditures by both the Applicants and the PTO and extreme prejudice to Applicants (particularly in view of GATT, a shortened patent term may result in any divisional applications

filed). Restriction has not been shown to be proper, especially since the requisite showing of serious burden has not been made in the Office Action. These factors mitigate against restriction.

Hence, it is evident that there is unity of invention in the pending claims, and in view of the foregoing, reconsideration and withdrawal of the requirement for restriction and favorable consideration of all of the claims on the merits are respectfully requested.

It is believed that no fee should be required due to the instant submission. However, if any fee is required, or if any overpayment has been made, please charge or credit Deposit Account No. 50-0320.

Respectfully submitted,

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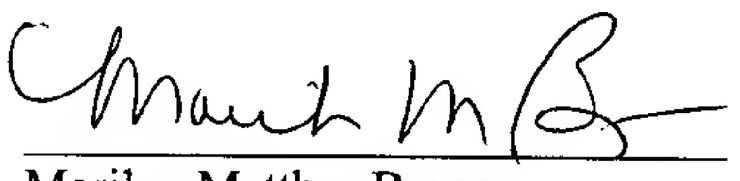
By: 

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

29. (Amended) A nucleic acid molecule as claimed in claim 26[27], which is a cDNA molecule.

37. (Amended) A host cell which is transformed with a nucleic acid molecule as claimed in [one or more of claims] claim 26[-31] or a vector as claimed in [one or more of claims] claim 32[-36] or a cell which is derived from the host[such a] cell.

38. (Amended) A process for the generation of a transgenic plant cell which synthesizes a modified starch, wherein a nucleic acid molecule as claimed in [one or more of claims] claim 26[-31] or a vector as claimed in [one or more of claims] claim 32[-36] is integrated into the genome of a plant cell.

26. A nucleic acid molecule encoding a protein with the function of a potato α-glucosidase, selected from the group consisting of

a) nucleic acid molecules which encode a protein which encompasses the amino acid sequence stated under SEQ ID NO: 2 or its derivatives or parts,

b) nucleic acid molecules which encompass the nucleotide sequence shown under SEQ ID NO: 1 or its derivatives or parts, or a corresponding ribonucleotide sequence;

c) nucleic acid molecules which specifically hybridize with, or are complementary to, the nucleic acid molecules stated under a) or b), and have over 70% homology, and

d) nucleic acid molecules whose nucleotide sequence deviates from the sequence of the nucleic acid molecules stated under a), b) or c) owing to the degeneracy of the genetic code.

27. A recombinant nucleic acid molecule containing

a) a nucleic acid molecule encoding a protein with the function of a potato α-glucosidase as claimed in claim 26 and

b) one or more nucleotide sequences which encode a protein selected from amongst group A, composed of proteins with the function of branching enzymes, ADP glucose pyrophoshorylases, granule-bound starch synthases, soluble starch synthases, debranching enzymes disproportioning enzymes, plastid starch phosphorylases, R1-enzymes, amylases, glucosidases, parts of said nucleotide sequences, or nucleic acid molecules which hybridize with said nucleotide sequences.

28. A nucleic acid molecule as claimed in claim 26, which is a deoxyribonucleic acid molecule.

29. (Amended) A nucleic acid molecule as claimed in claim 26, which is a cDNA molecule.

30. A nucleic acid molecule as claimed in claim 26, which is a ribonucleic acid molecule.

31. A nucleic acid molecule which specifically hybridizes, with a nucleic acid molecule as claimed in claim 26.

32. A vector comprising a nucleic acid molecule as claimed in claim 26.

33. A vector comprising a nucleic acid molecule as claimed in claim 26, wherein the nucleotide sequence encoding a protein with the function of an α-glucosidase or parts thereof is present in sense or antisense orientation.

34. A vector comprising a nucleic acid molecule as claimed in claim 27, wherein the nucleotide sequence encoding one or more proteins selected from group A or parts thereof is present in sense or antisense orientation.

35. A vector comprising a nucleic acid molecule as claimed in claim 27, wherein the nucleotide sequence encoding one or more proteins selected from group A is partly present in sense orientation and partly in antisense orientation.

36. A vector comprising a nucleic acid molecule as claimed in claim 26, which is linked to regulatory elements which ensure transcription and synthesis of an RNA, which is optionally translatable, in a pro- or eukaryotic cell.

37. (Amended) A host cell which is transformed with a nucleic acid molecule as claimed in claim 26 or a vector as claimed in claim 32 or a cell which is derived from the host cell.

38. (Amended) A process for the generation of a transgenic plant cell which synthesizes a modified starch, wherein a nucleic acid molecule as claimed in claim 26 or a vector as claimed in claim 32 is integrated into the genome of a plant cell.

39. A plant cell which is obtainable by a process as claimed in claim 38.

40. A transgenic plant comprising the nucleic acid molecule of claim 26.

41. A transgenic plant comprising the plant cell of claim 39.